

educated human capital, specifically talent who can translate scientific theory into practice to meet commercial demand. Success in this trajectory is often determined by the ability to transition scientific discoveries to high-scale operations, once proof of concept and testing are complete.

Customized Service Strategy – Companies following this strategy intend to provide complex, high-value services by developing solutions to intractable problems. These companies provide professional or creative services by harnessing and repackaging existing ideas and practices. They also tend to leverage a diverse network of specialized partners. Reputation is important, but so too is a fluid organizational structure that allows project teams to form and disperse as needed. The ability to successfully manage a project and efficiently marshal the resources needed to deliver on a promise is critical. These firms are important because of their own productivity, and due to their ability to increase the competitiveness of their clients.

How does economic development support business productivity?

There are four⁹ primary ways in which economic development efforts support productivity growth in North Carolina. These include: 1) workforce training; 2) business process innovation; 3) technology adoption; and 4) business recruitment. These services can be used to support the four business productivity strategies described above.

Workforce Training – A highly skilled workforce is essential for businesses attempting to increase productivity. The skills of the workforce determine a business' ability to adopt and utilize new technologies and process innovations. The North Carolina Community College System (NCCCS) is a major proponent of workforce training for the state. NCCCS works in cooperation with the Department of Commerce and other agencies to offer customized industrial training for new and existing companies. These services ensure that workers are trained to operate in an increasingly technical work environment.

Business Process Innovation – Assistance for business process innovation is a service most often associated with the incremental upgrading strategy. However, its increasing importance applies to all four business productivity strategies. New product and new science strategies may incorporate process innovation to improve efficiency in product testing or to manage the design process. Businesses that follow the customized services strategy may use process innovation to manage relationships with both customers and partners. The end result is better customer service and a higher value product. Several organizations provide process innovation assistance in North Carolina. Of particular note is the North Carolina State University's Industrial Extension Service (IES). IES partners with businesses across a variety of industries to transfer knowledge and technology that lowers costs, improves quality, and shortens lead times¹⁰.

Technology Adoption – Technology adoption seeks to raise awareness of and encourage investment in new technologies. Technology adoption often overlaps with process innovation. Many times, awareness of new technologies is a challenge for small and medium-size companies, and businesses located in remote areas. Several organizations, including IES and the Small Business and Technology Development Center, make companies aware of the latest relevant technologies in their industry. There are incentives that address the challenge in acquiring new technologies for North Carolina companies. The Article 3J Business Property Investment tax credit incentivizes investment in new capital and technology. Also, the R&D tax credit, the Small Business Innovation Research program, and the Small Business Technology Transfer program provide incentives for businesses to develop new technologies.

Strategic Business Recruitment – Strategic business recruitment may contribute to productivity growth within North Carolina's economy in at least three ways. First, companies strategically targeted by recruitment efforts may help to increase North Carolina's productivity levels if they are more productive than existing businesses in that industry. Second, when highly competitive companies are recruited to the state, they typically impact productivity, because they bring new best practices with them that other companies learn from and replicate. Third, companies may be strategically targeted to expand export industries or to fill gaps in the local supply-chain. Both strengthen the economy by ratcheting up North Carolina's competitiveness, exerting pressures to improve productivity in return.